arvard Medical Alumni Bulletin

ume 21, Number 4 *June, 1947*

to combat

depression characterized by

"chronic fatigue"

Depressed patients "... suffering from psychomotor inhibition complain of feeling tired, of not being able to get started on their daily tasks, and of an abnormal inclination to procrastinate. They make up their minds that they are going to do a certain thing but they never seem to get to it. Everything seems too big for them . . ."*

In the above quotation, Kamman emphasizes "chronic fatigue" as a dominant symptom in the type of depression most frequently encountered in daily practice.

Benzedrine Sulfate is particularly valuable in the presence of "chronic fatigue". It will, in most cases, help to overcome the depression and thus enable the patient to make a sincere and constructive effort to surmount his difficulties.

*Kamman, G. R.: Fatigue as a Symptom in Depressed Patients, Journal-Lancet 65:238 (July) 1945.

b

Tablets and Elixir

benzedrine sulfate

(*racemic amphetamine sulfate, S.K.F.*)

Smith, Kline & French Laboratories, *Philadelphia, Pa.*


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Demerol hydrochloride ranks between morphine and codeine in analgesic power. Furthermore, it possesses marked spasmolytic and mild sedative action. It causes less nausea and vomiting and less urinary retention than morphine, and no constipation. The danger of respiratory depression is also greatly reduced with Demerol hydrochloride. Warning: May be habit forming. Ampuls of 2 cc. (100 mg.) and tablets of 50 mg. Narcotic blank required.

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Volume 21 June, 1947 Number 4

Medical School Notes

BIOPHYSICAL LABORATORY

A further proof of the basic unity of the several sciences is provided by the recently organized Biophysical Laboratory located in Building D-2 of the Medical School. It was initially felt by President Conant's Committee on Medical Research in Biophysics (Drs. A. B. Hastings, J. C. Aub, A. R. Moritz, J. L. Oncley and S. Warren) that a group consisting of a physicist, a biochemist and a clinician would be in an advantageous position to offer advice and assistance to those medical departments working in the physical field.

At present, the activities of the laboratory are largely concerned with the measurement of stable and radioactive isotopes. A mass spectrometer for the measurement of stable isotopes such as Hydrogen 2, Carbon 13 and Nitrogen 15 has just been completed. This instrument embodies many improvements resulting from work done in the Manhattan District during the war. Techniques have been developed for the measurement of radioactive isotopes of medical interest, including, particularly, Carbon 14, Phosphorus 32, and Sulfur 35.

In order to procure radioactive isotopes it has been necessary to ensure that adequate protection is offered against the effects of over-exposure to the radiations. As a result, a comprehensive protection procedure has been worked out in conjunction with Dr. Shields Warren and Mr. Russell Cowing of the N. E. Deaconess Hospital.

At present the laboratory is engaged in several collaborative researches, including work with the Department of Biochemistry on the incorporation of carbon dioxide into glycogen and proteins. In collaboration with Mr. Philip Drinker and Dr. M. Clinton. Jr., of the School of Public Health, research has been undertaken to measure the toxicity of carbon disulfide using Sulfur 35. Advice and assistance on isotope procurement and measurements have also been given to a number of investigators working in different medical school departments and hospitals. Generous support of the research program has been provided by the Office of Naval Research.

In order to familiarize the Medical School with the nature and use of isotopes, a series of seven informal lectures called "An Introduction to Isotopes" has been presented.

The rooms on the ground floor of Building D-2 are being remodeled to provide adequate modern laboratories for their new use. Of particular interest is the so-called "hot" laboratory where a large and well-equipped concrete and lead shielded hood is being constructed in order to facilitate handling of the large amounts of radioactive material now available from the Manhattan District. Another laboratory has been set aside for making routine radioactive measurements, which will soon be available on a service basis to groups whose problems are not of such magnitude that they require their own separate equipment.

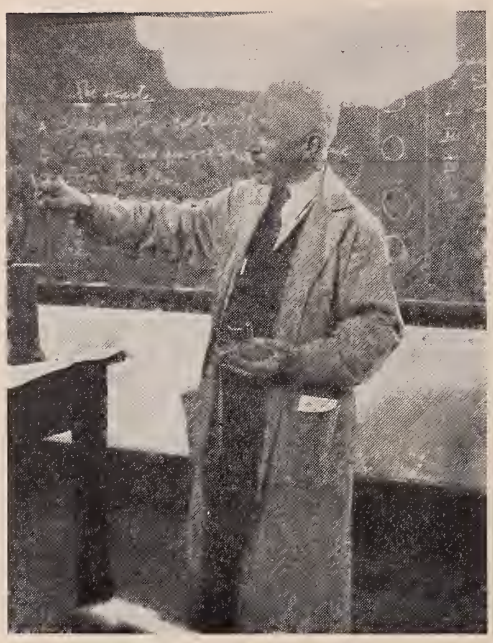
The senior members of the Biophysics Group include Dr. Seymour Gray, Dr. A. K. Solomon and Dr. DeWitt Stetten, Jr. In addition, there is one graduate student enrolled for the Ph.D. degree, and a further staff of six people.

A. K. Solomon.

PROFESSOR ROBERT M. GREEN'S LAST LECTURE

"Vivat Academia,

Vivant Professores . . . ," one hundred and twenty voices filled the anatomy building amphitheatre with the chorus of



Gaudeamus Igitur as the first year class and twice their number in upper-classmen, graduates, and faculty rose to honor Professor Robert M. Green.

It was January 23, 1947, the last day of the first year course in Gross Anatomy at Harvard Medical School, and Dr. Green had delivered the final lecture. This was no usual send-off, for the man who inspired the demonstration, which was unique in medical school history, was leaving the stage he loved so well, and had used so well for over forty years.

The professor, beloved of three generations of medical students, had no idea of the ovation he was to receive, nor did he expect one. He did not know that his wife was there for the first time to hear him lecture in his famous course, and though the audience filled all the seats and overflowed onto the stairs in the aisles, he did not seem to notice as he entered the auditorium to speak on the remaining material in the course.

"The subject for our consideration today," he began, "will be the Pterygo-Palatine Fossa, known as 'the last lurking-place of the demon of anatomy'," and his sweeping white moustache roofed a warm smile of greeting to the class and to the day's topic. Deftly adjusting his glasses, he bent his head to survey the prepared dissection before him and with probe and faultlessly flowing diction he continued the lecture.

Cameras buzzed and flash bulbs blazed at disconcerting moments, catching Dr. Green poised with a specimen raised on high, or busily exploring the interior of the gigantic skull model on the platform, but these could not ruffle his dignity nor break the thread of his story, a story he had been telling with unvarying success and interest for so long.

It has been rumored during the past few years that each was to be the last during which Professor Green would teach, but new classes discovered their good fortune in the error. He would never stop teaching, it seemed, and everyone hoped this would be so.

It wasn't until his course was almost over that is was learned he was to retire this June. The class responded spontaneously, for no class of his would have required much excuse to show their sincere admiration and affection for Dr. Green.

Their gift to him was to be a watch, and its inscription, in Greek, was suggested by his own teacher, Professor Emeritus Gulick, at Harvard; a quotation which Dr. Green especially liked. ΧΡΟΝΟΣ ΣΟΣΩΤΑΤΟΣ ΒΟΥΛΕΥΤΗΣ it read, "Time is the wisest counselor."

Finishing the lecture, Professor Green paused to advise the students to be sure to carry out their "last and very instructive dissection," and then said goodbye.

"As you may know," he confided, "with this lecture I terminate not only this course, but also over forty years of continuous teaching . . . 'growing old, ever learning'. The other day I calculated that in the course of these years, I have taught some ten thousand students (this figure includes medical students, students of classics and others who attended his various lectures on public hygiene and associated medical topics) and one of the greatest satisfactions has been the contact with so many young people. I shall continue to be one among you . . . for 'who would grow old without books, without music, and without friends?' . . . It has been a pleasure working with you, doctors."

After the thunderous applause subsided, Kliewer, President of the class, presented the watch. "Today, Dr. Green, you have delivered a baby class into the world of medicine."

He had delivered many such baby classes and is one of the best and most warmly-remembered of their teachers. Introducing them to their studies, he did not present a formidable atmosphere of cold dissections and endless facts; his course, as he himself, was fully-rounded. It included more than the well-organized syllabus. Dr. Green was a rare scholar who could bridge the gap between the arts and the sciences, between the abstract and the practical.

Little wonder that the crowd of students and colleagues had so naturally assembled. Anatomy, traditional bane of medical students, was transformed by Professor Green into one of the most inspiring (of) courses. Not only for his classical allusions, his measured speech, amazing memory and organization, nor his delightful anecdotes, were his lectures memorable. They were permeated by the spirit of the gentleman and the perpetual student; and ever more by the immense and compelling respect which he held for his profession, his patients, the art he was teaching, and even towards the beginners he was always instructing—the row on row of first year men, and lately women, who were fortunate enough to find "Bobby" Green at the gate to their careers.

Now he was retiring from his.

No one there will forget the full emotion of the moment—the warmth and happiness of the tribute.

Every singer's heart was in his voice as the traditional students' hymn rang resoundingly through the amphitheatre, celebrating Dr. Green's parting lecture and the great educational traditions he represented.

" . . . Vivat membrum quodlibet,
Vivant membra quaelibet
Semper sint in flore,
Semper sint in flore."

Donald S. Gair, '50.

STUDENT PARTY FOR S. BURT WOLBACH

On Friday afternoon, April 11, the Second Year Class gave a party in the Gymnasium of Vanderbilt Hall in honor of Dr. S. Burt Wolbach on the occasion of his retirement. The party also marked the end of the pre-clinical courses and so was partly in honor of all of the instructors of the first two years. Dr. Merrill C. Sosman had

provided 200 artificial carnations which turned out to be of an even more crimson hue than real ones and which were worn by everyone, students and faculty alike.

The Class expressed their appreciation to Dr. Wolbach by presenting him with an engraved humidor, after which he delivered an informal speech in which he recalled the enjoyment he had derived from teaching and the pleasant stimulus which had been afforded him by his contact with students over the years at Harvard Medical School.

The party provided an excellent opportunity for Dr. Wolbach's last class to thank him for all that he has given both to them and to the countless graduates who have benefited from his teaching in the past.

Bradley Bigelow, '49.

WAR MEMORIAL

At a recent meeting of the Council, it was tentatively decided to place a tablet on the stairway of Building A listing the names of those who died while in the Armed Services during World War II. There are twenty-nine names included. This conforms with memorial tablets to the dead of the Civil War and World War I similarly placed.

Under "Correspondence" in the present issue is a letter protesting against expenditure for such a purpose.

It would be of assistance to the Council if there were more expression of opinion concerning expenditure of the Alumni Association funds for this purpose.

NEW SEAL

Since 1931 a seal representing the Harvard Medical Alumni Association has graced the cover of the Bulletin. In 1944, it was called to our attention that the seal, admittedly a handsome design, bore the arms of Harvard University combined with a caduseus. Such a seal was eminently suited to indicate the Harvard Medical School, but definitely not an Alumni Association.

An artist at the Massachusetts General Hospital designed a shield which was used on the covers of the April and June issues of the Bulletin in 1944. This brought forth the following letter from Harold Bowditch, '09, to Reginald Fitz, '09:

"Since you are a Medical Historian I turn to you for information about the device for the Harvard Medical Alumni Association which appears on the new cover of the Alumni Bulletin for the first time.

Does the date 1891 refer to the time when this design was made, or is it the date of foundation of the H.M.A.A. placed on a new design?

And who done it?

The design is heraldic and for that reason comes rolling down my alley.

According to heraldic usage, its significance is that Mr. Harvard College married Miss Aesculapius, and that she was old Dr. Aesculapius's only daughter.

Historically this is not correct; Dr. Aesculapius had two daughters, Hygeia and Panacea; and there is no record of the marriage of either to Mr. Harvard.

I think that if the design is placed on a shield it should follow heraldic custom, which is distinctly *not* to have lettering on the shield and not to place meaningless scrollwork on it to fill spaces.

If you want a coat of arms, and want the designs which have been here used,

you might place the club and serpent of Aesculapius upright in the middle and the three books beside and below it; then surround the shield with a circular band bearing the wording.

This would give the effect of a seal and could be made really good and effectively simple.

If the device is as old as 1891 there will probably be a squawk if a change is suggested, for in this land of ours, which is really still wet behind the ears, thirty years is as a millenium and fifty is ancient beyond computation; but if a thing is really bad, as this design certainly is, it is a pity to keep on using it.

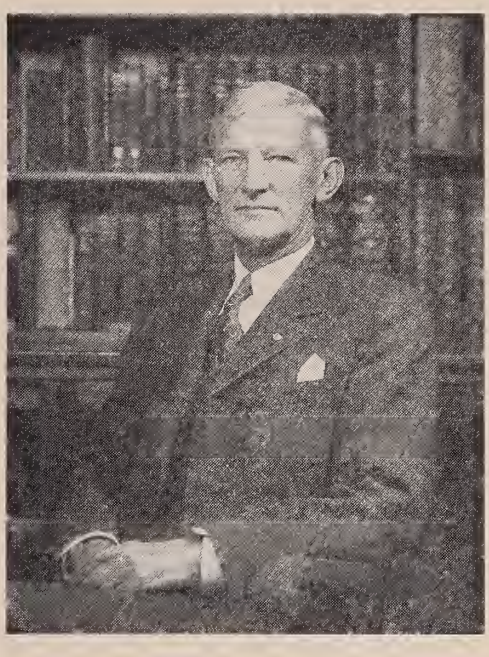
What think you?"

As a result of this Dr. Bowditch himself redesigned the seal to conform to heraldic principles as was shown in the BULLETIN of January 1945.

From then until recently nothing was decided upon as there were always councillors present at meetings whose ideas of art appreciation were so varied that no unanimity of opinion could be arrived at. Finally, at the council meeting in April 1947, a group met who held little regard for modern geometric and impressionistic symbols and quickly and unanimously accepted Dr. Bowditch's design as our official seal. It will henceforth appear on the cover of the BULLETIN and we think it will be liked.

HONORS TO ELLIOTT C. CUTLER

Honors to Elliott C. Cutler, Moseley Professor of Surgery, are numerous this spring. In March he succeeded Edward D. Churchill, John Homans Professor of Surgery to the Presidency of the American Surgical Society. In May the Secretary of War and the Surgeon General visited him at his home and presented an Oak Leaf



Cluster to the Distinguished Service Medal awarded him for his work during World War I. The citation read in part, "General Cutler was a source of inspiration to the hundreds of surgeons at whose hands the American soldier received the finest care the world has ever seen." On the second of June he received the Henry Jacob Bigelow medal from the Boston Surgical Society. A list of the ten previous recipients, William J. Mayo, William W. Keen, Rudolph Matos, Chevalier Jackson, George Grey Turner, John M. T. Finney, Harvey Cushing, Edward W. Archibald, Allen O. Whipple and Frank H. Lahey, attests to the great honor that accompanies the medal. The award is not made annually but only when a surgeon appears to be of sufficient stature to be so honored. Thus Dr. Cutler will be the eleventh recipient in the thirty-two years since the medal was established.

Undergraduate Assembly

The 1947 Undergraduate Assembly was held Thursday afternoon, May 15, in Building E Amphitheater. The following program was presented:

2.00 P.M.

1. The Relationship of Premature Nursery Techniques to Infant Mortality
   C. Warren Bierman, IV Year
2. The Effect of B-Complex Vitamins on the Voluntary Consumption of Alcohol by Rats
   Roscoe O. Brady, IV Year
3. Effect of X-radiation on Experimental Hypersensitivity
   T. C. Hall, Undergraduate Research Fellow
4. An Immunologic and Pharmacologic Study of Purified Tetanus Toxin using Radioactive Iodine
   Paul D. Hoprich and John H. Prodell, Jr., IV Year
5. The Use of Protein Hydrolysate in Treatment of Malnutrition
   David Y. Hsia, III Year
6. Gastric Secretory Responses to "Mecholyl"—Progress Report
   W. P. J. Peete and John McL. Olney, IV Year
7. Studies on Folic Acid Conjugase from Hog Kidney—Progress Report
   Kingsley M. Stevens, IV Year
8. Cutaneous Reactive Hyperemia as a Measure of Circulatory Stress
   L. H. Smith, J. Stokes, Undergraduate Research Fellows

4.00 P.M. Informal Intermission
Refreshments served outside on walk

4.20 P.M. Presentation of Awards by Faculty Committee:
The Soma Weiss Award, The Maimonedes Award, The Borden Prize

4.30 P.M. Address—On the Electron Microscopy of Tissue Cells
Dr. Keith R. Porter, Rockefeller Institute of Medical Research

Papers Read by Title Only

1. Explanation of Mammalian Viscera onto the Chorioallantois of the Embryonic Chick
   R. C. Larimer, IV Year
2. The Metabolism of Histamine and Adenylic Compounds in the Embryo
   George A. Misrahy, III Year
3. Detoxification of Toxins by Formalin
   Elliott S. Robinson, Jr., IV Year

The fourth paper, that by Paul D. Hoprich and John H. Prodell, Jr. brought its authors the distinction of winning the Soma Weiss Award. This award, which carries a $25 stipend, is presented for the paper judged best by a Faculty Committee.

Roscoe Owen Brady received the first Borden Undergraduate Research Award in medicine presented at Harvard Medical School. This will be presented each year to the member of the graduating class who while enrolled in the School has completed the most meritorious research. The judges are a Faculty Committee. The award is $500. Mr. Brady's paper was entitled "The Effect of B-complex Vitamins on the Voluntary Consumption of Alcohol."

The First Maimonedes Award was presented to Sidney Harold Ingbar. This is a $50 award contributed by the Greater Boston Medical Society "to a worthy student."

This was the eighth annual Undergraduate Assembly at Harvard Medical School. At a meeting of the Boylston Medical Society in 1940, Dr. Edward D. Churchill mentioned that an assembly at which students carrying out laboratory and clinical investigation could present their work would serve a useful function at Harvard Medical School. The 1940 Aesculapian records the history of the first Undergraduate Assembly. A group of Senior medical students including Addison G. Brenizer, John B. Hickam, William F. Hickey, Jr., J. Gordon Scannell, and Thomas H. Weller with F. Thomas

Gephart as Chairman organized the first Undergraduate Assembly.

In general the aims of the Assembly were stated thus: 1) to make known to the undergraduates the investigative work of their colleagues in the field of medical science; 2) to provide those undergraduates engaged in investigative work an opportunity to present their problems before an interested assembly; 3) to offer the undergraduates an opportunity to become acquainted with certain techniques and methods of investigation; 4) to demonstrate the possibilities of undergraduate investigative work.

Student and Faculty cooperation, particularly of the men who were asked to serve as Faculty advisors and this group included: Drs. Edward D. Churchill, A. Baird Hastings, George R. Minot, Soma Weiss, and George B. Wislocki combined to make this Assembly successful. It consisted entirely of student papers. There were thirty, eighteen being read by title only.

The Undergraduate Assembly was made self-perpetuating by the group who originally organized it. They selected Edward H. Ahrens, Jr. and John A. Schilling from the Third Year Class to serve with them and as the nucleus for a Committee to sponsor the 1941 Assembly. Thus the responsibilities for the Assembly have been passed along from year to year.

In subsequent years because of money raised through or donated by Dr. George R. Minot and other Faculty members, it became possible to include eminent, out of Boston speakers on the program. Also, it was possible when Dr. Soma Weiss died to create the Soma Weiss Award carrying a $25 stipend to present to the student(s) whose paper was judged best from among those presented at the Assembly.

This year as in 1940 the Committee for the Undergraduate Assembly was aided by the utmost cooperation of Faculty and students. Funds from previous gifts to the Assembly were gone. Funds were needed for the Soma Weiss Award, a speaker's traveling expenses, the printing of programs, posters and for incidentals. This problem was presented to a number of Faculty members, and they donated over $500 to the Undergraduate Assembly of Harvard Medical School.

Committees for the 1947 Undergraduate Assembly included a group of Faculty members who selected papers for presentation at the Assembly and as counselors, a group who selected the winners of the Soma Weiss Award, and the undergraduates who were responsible for organizing the Assembly. They were:

Faculty Judges—Herrman L. Blumgart, M.D., William B. Castle, M.D., Edward W. Dempsey, Ph.D., James C. White, M.D., S. Burt Wolbach, M.D.

Faculty Advisors—Mark D. Altschule, M.D., C. Sidney Burwell, M.D., Edward D. Churchill, M.D., John F. Enders, Ph.D., Eugene M. Landis, M.D., George R. Minot, M.D.

Undergraduate Assembly Committee—William P. J. Peete, IV Year, chairman; Hermes Grillo, IV Year, James D. McMurrey, IV Year, Myron G. Sandifer, Jr., IV Year, Morton N. Schwartz, IV Year, Malcolm D. Clark, III Year, Edward V. Evarts, III Year, Daniel C. Tosteson, III Year.

William P. J. Peete, '47

How Radiology Arrived at Harvard

Frederic T. Lewis, '01

It is no "rambling history" that Dr. Sosman has so ably presented in the April Bulletin, but his youth prevents observation of the earliest years. When, late in December of 1895, Professor Röntgen published his discovery, and early in January the exciting news had spread over Europe, Harvard's professor of psychology, Dr. Münsterberg, was in Germany. Clearly elated, he sent a letter to *Science,* from Freiburg, Jan. 15, reviewing the "chief facts about the X-rays." "The physical laboratories of Germany have no windows looking towards the patent office," he remarked, as he described Röntgen's photograph of the bones of the living hand without the flesh and skin, the gold rings seeming to hang in air. "The value of such a method for medical diagnosis is clear," he said, but "it will be a matter of the future to learn whether the rays have psycho-physiological effects."

On Jan. 24, 1896, one week before that letter was available, the editors of *Science* inserted among the "Notes and News" this item:—

> The Vienna *Presse,* the London *Standard,* and other daily papers report what purports to be an extraordinary discovery by Prof. Röntgen. It is claimed . . . (etc., concluding:—) Prof. Röntgen is professor of physics at Würzburg, and any experiments published by him would be accepted without hesitation.

Then, on the 31st, the Münsterberg letter was published, with confirmations. "The photographs have been exhibited before several scientific societies and by Prof. Röntgen to the Emperor of Germany, from whom he has received a decoration."

Thereupon "physicists all over the world began immediately and enthusiastically to experiment with X-rays"—to quote Dr. Glasser, of Cleveland, Röntgen's definitive biographer. Some 40 indexed references to the subject in the columns of *Science* for the first half of 1896 are evidence of American participation. Prof. John Trowbridge, Director of the Jefferson Physical Laboratory, represented Harvard in that distinguished group.

When Prof. Pupin, of Columbia College, published in *Science* of Feb. 14, 1896, radiographs of various objects with results "similar to those obtained by Profs. Trowbridge and Wright," he used an exposure of one hour. "Inconveniently long," Prof. Goodspeed, of the University of Pennsylvania, had already commented; and from the Dartmouth Physical Laboratory a fracture of the ulna had been shown "very distinctly" after an exposure of 20 minutes (E. B. Frost, Hanover, Feb. 4). Trowbridge obtained pictures in less than a minute, and in March he reported a method of locating the depth of pieces of metal in the human body by placing the terminals of two Crookes' tubes at an angle with each other. In his laboratory, in February, he conducted a "physical colloquium" on "Longitudinal Ether Waves." "Ought not the new rays to be ascribed to longitudinal vibrations in the ether?" was Röntgen's leading question.

There was also a popular demonstration in Cambridge, which the writer attended. Crookes' tubes were shown and explained, and lantern slides pictured what their cathode rays could do. I recall the radiograph of a thick leather purse containing a very few coins—"a professor's pocketbook," it was explained. More interesting was a fine picture of the bones in a turkey's wing where the hand is reduced to three fingers.

On the 25th of April, 1896, Dr. Francis H. Williams, at the meeting of the Suffolk District Medical Society "gave an extremely interesting demonstration of the work that had been done at the Massachusetts Institute of Technology in developing the applications of the X-rays to medical purposes." In other words he showed what he had accomplished at the City Hospital in exploring the chest, with the reluctant

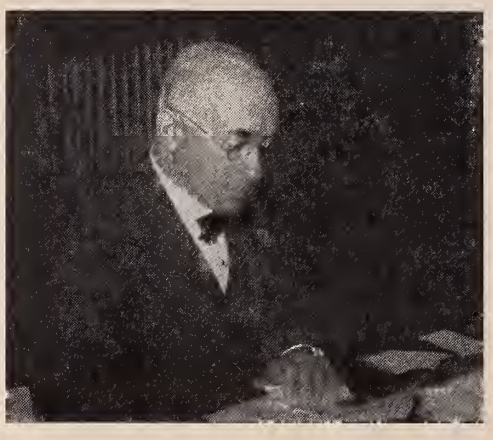
admission that up to that time they had been unable successfully to outline the viscera of the lower abdomen and pelvis. As to fractures, "a physician might take his patient to the Institute, and there with the aid of Prof. Cross's apparatus and the fluoroscope, see at a glance the position of the ends of the bone, and that without removing the bandages" (Boston Med. and Surg. J., 1896, *134,* 447-8). In this important work Dr. Williams was doubtless aided by his brother-in-law, William H. Rollins, D.M.D. (Harv.) '73; Instructor in Dental Pathology, '74-'78; M.D. (Harv.) '79; and from 1896 the prolific author of "Notes on X-light." In 1898 Dr. Rollins called attention to an experiment by Prof. Trowbridge:—"By means of a Plante generator of his own design and construction he obtained a photograph of the bones of the hand in a millionth of a second. In doing this he placed the mark so high . . . no arrow has approached it."

Dr. Williams "apparently learned quickly that the new rays were dangerous as well as helpful, and was always very careful to protect himself." Severe and persistent "burns" had been reported in the first year of X-ray use, and the employment of X-rays mounted steadily. "In 1898," as Dr. Williams states in the Appendix of his monumental "Roentgen Rays in Medicine and Surgery" (3rd ed., p. xxxiii, 757), "Mr. Ernest Fewkes was appointed to do the radiographic photographic work of the hospital." "Mr. Fewkes," he continues, "had no knowledge of X-ray work when he was appointed, but his 12 years' experience as a photographer and his marked mechanical ability were strong recommendations. I taught him how to use the apparatus and to take radiographs, and gave much time to this part of the work for more than another year, and still supervise it. *The X-ray photographs which have been reproduced in the preceding pages were made for the most part by Mr. Fewkes."* (The italics are our own.)

Mr. Ernest Edward Fewkes was a younger brother of Dr. Jesse Walter Fewkes, who worked his way through college (A.B., Harv., '75) and became Chief of the Bureau of American Ethnology. Another brother was a horticulturalist in Newton, and Mr. Ernest Fewkes divided his time between greenhouse management and photography. Dr. Williams, he said, was always talking protection, but the early protective measures were largely experimental. With all precautions, the making of some 30,000 plates had distressing results. In 1923, twenty-five years after his City Hospital appointment, skin grafting of certain fingers was required. Radium treatment, on which Dr. Williams was an authority, checked but did not cure the condition. In 1930, two fingers of the left hand, and a week later the first finger of the right hand were amputated by D Porter. In 1931 Dr. Simmons removed more of the right hand and another finger, leaving a thumb and two fingers on each hand. With exemplary patience in his crippled condition, some manipulative and self-supporting work could still be done, so that the proposed amputation of both hands seemed inadvisable. To see those hands was a wholesome warning to students of the dangers of X-ray, and they were shown at appropriate clinics. In 1939, a petition to the Legislature to obtain for him a pension was signed by Dr. Begg, Secretary of the Massachusetts Medical Society, and, among others, by Drs. Cutler, Kazanjian, Mallory, Shields Warren, and Wolbach, helping to enable him to live in the house which he had built, until his death at the age of 77. Among those who served in the dangerous introduction of radiology in this community, Ernest Fewkes surely deserves honorable mention.

Simeon Burt Wolbach - An Appreciation

Elliott C. Cutler, '13



At the end of the present academic year, Simeon Burt Wolbach becomes Shattuck Professor of Pathological Anatomy, *Emeritus*.

Born and educated in Nebraska, he came to Harvard University in 1897. After two years at the Lawrence Scientific School, he went to the Harvard Medical School, receiving the M.D. degree in 1903. Following graduation he received expert training in pathology and bacteriology for two years under Dr. F. B. Mallory at the Boston City Hospital. Next he spent three years at Albany and Montreal but returned to Harvard in 1910, first in the Department of Bacteriology, 1910 to 1916, and for the remainder of his Harvard service in pathology—for the last twenty-five years as Shattuck Professor. It is of interest to note that Dr. Wolbach thus came to his fruitful and productive years highly trained in two laboratory disciplines.

Dr. Wolbach's scientific achievements have received international recognition and have contributed significantly to the reputation of Harvard Medical School as a research center. While Dr. Wolbach has published important single papers on many subjects, especially on x-ray dermatitis and its relation to cancer, his major interests have been in two fields—the rickettsial diseases (1916-1925) and vitamins (1925-the present). In the field of rickettsial disease he established the nature of the causative organism and characterized the lesions of Rocky Mountain Spotted Fever. As a result of his studies in Poland in 1920, he was able to isolate beyond any doubt the true etiological agent of typhus from a group of a dozen or so which had been described and at the same time to define the sequences by which the lesions of typhus develop. These monumental contributions to the pathology of infectious disease are convincing proof that Dr. Wolbach is right in his contention that the best research in pathology is the result of combining knowledge and technics in other fields—bacteriology, chemistry, physiology—with those conventionally attributed to the pathologist.

Dr. Wolbach abruptly left the field of rickettsial research in 1925 and centered his interest on the effects produced in tissues by deficiency and excess of vitamins. His elucidation of the changes in epithelium and bone in relation to vitamin A and of those in intercellular materials in vitamin C deficiency have brought him world fame. Each year sees another of these studies completed, every one of them further proof of his skill in combining pathology, chemistry and physiology and of his deep insight into the ways of living tissues.

Distinguished as Dr. Wolbach's research has been and continues to be, he has also been a great teacher. As a lecturer to medical students, he has always refused to stoop to histrionics or to repetition of textbook material, preferring to discuss recent advances, his own ideas on the subject and correlations with other basic sciences and with the clinic. At first students sometimes complain, for it means that they have to read the textbooks themselves, but they soon find that they are getting something which is invaluable and which can be gotten in no other way. Many continue to refer to their notes on Dr. Wolbach's lec-

tures years later, when they have become established clinicians.

As Shattuck Professor, Dr. Wolbach has been responsible for the Pathology Laboratories of the Peter Bent Brigham, Children's and Boston Lying-In Hospitals. This task he has never treated as routine; each specimen is a challenge to test old ideas and to seek the cause and nature of disease. Such an attitude can hardly fail to produce a series of distinguished students at the post-graduate level. This is borne out by the fact that, from the Brigham Hospital alone, ten former assistants of Dr. Wolbach at that hospital have held full professorships in important medical schools and one is a member of the Rockefeller Institute.

But that is only a part of the influence of Wolbach the teacher in these hospitals. In clinico-pathological conferences, in the operating room and ward, at the lunch table, he has given freely his great experience and very broad knowledge and has stimulated the clinician to find out what lies behind the name of a disease and how its functional and structural changes are related. None of these hospitals can fully express their debt to him in maintaining high standards, in stimulating research and in training clinicians as well as pathologists.

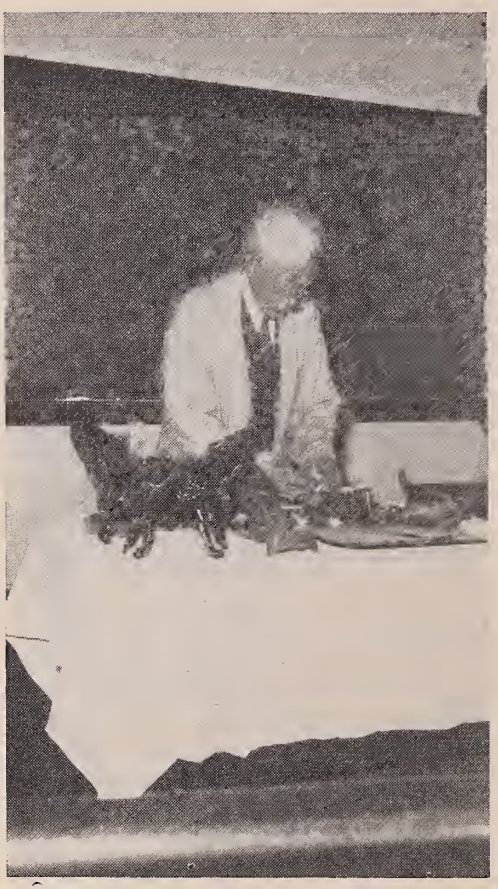
These achievements must not be allowed to overshadow the picture of a great personality. Simeon Burt Wolbach has been gifted with great intellectual fortitude. This not only has played a great role in his research endeavors but coupled with his fearlessness, has made him a leader in the Medical School. His opinion, only given after thorough and careful weighing of the evidence, has been a major factor in many important decisions. Although of a quiet, retiring nature, he can and has carried decisions he believes are important to fruition against opposition based on narrow viewpoint and expediency. Moreover, his position in faculty decisions has been uninfluenced by any consideration other than what was best for the Harvard Medical School.

Dr. Wolbach's breadth of interest in academic affairs is matched by his interests outside medicine. He is at his happiest on his farm in Sudbury. In his hobbies as in his scientific works, Dr. Wolbach is a perfectionist; he holds many awards for shooting; his skill in horsemanship is renowned; he has an international reputation as a photomicrographer. His qualities are those best found in what is usually called the strong, silent man. These qualities lie within him, they are not easily seen. Thus, though his students and colleagues admire him greatly, his friendships are restricted to those who live and do as he does and chiefly to those who like the quiet and peace to be found in the "open spaces." Here on a river or in a forest he lets himself go, untrammelled by the cloak of society, and becomes the great companion.

Although Dr. Wolbach will soon reach the dignity of an emeritus professorship, he has not the slightest intention of retiring from active work. He will direct a Division of Nutritional Research at the Children's Hospital Medical Center and will continue his investigations of vitamin deficiency and excess in relation to cells and tissues. We look forward with keenest anticipation to the results of this research; we rejoice that his wise council will still be near at hand.

Robert Montraville Green

David Cheever, '01.



The heavy and sometimes inept hand of the actuary:—"a person skilled in the doctrine of chances"—has been laid upon Robert Green and has written "finis" to his forty years of teaching in the Department of Anatomy. The "chances" refer to the statistical probability that at a certain age he is likely to show an impairment of his powers such as to render desirable his retirement for the good of the service. Happily for him, — unfortunately for the school, — such is not the fact. It is regrettable that such rules are rigid rather than flexible. Our presidents may serve until three score years and fifteen. if they will; is the drain upon their psychosomatic personalities less than in the case of faculty members?

The soundness of the scion depends on the soil, the seed, and the environment. In this case the soil was the Massachusetts Bay Colony and its back country; the seeds were the Puritan Settlers, and the environment, the country-side, towns and cities of New England with their public schools and Harvard University. Twenty-five of Green's progenitors fought in the Colonial Wars, and five in the Revolution. Some were farmers and some went to Harvard and became ministers, teachers, or doctors. His father was Dr. Charles M. Green, Professor of Obstetrics and Gynecology and Secretary of the Faculty at our School; his maternal grandfather was Dr. John Ware who succeeded Jacob Bigelow as Hersey Professor of the Theory and Practice of Physic, and his great grandfather was Henry Ware, Professor of Christian Theology at the Harvard Divinity School. It is not surprising to learn that his choice of a vocation hesitated between the ministry, medicine, and teaching. His final choice, indeed, was a career built essentially on all of these professions.

Dr. Green was born in Boston, on July 11, 1880, at 78 Marlboro Street where he lived, until his marriage in 1919, in an atmosphere and environment justly and fondly described as late Victorian. He prepared for college at the Boston Public Latin School,—the oldest school in America, where his natural taste for scholarship was confirmed. His undergraduate life at Harvard was supremely happy, devoted to languages, philosophy and the natural sciences, to membership in the Signet Society, to editorship of the "Monthly," to the winning of a First Bowdoin Prize for an English essay, and to the secretaryship of Phi Beta Kappa. At his Class Day in 1902 he was Class Poet, and at Commencement he gave the English oration,—an honor which recognized his graduation first in his class with a double *summa cum laude,* for general excellence and for high-

est honors in English. At the Medical School he passed "four intensely interesting years of hard work," finding his especial interest in anatomy, surgery and obstetrics, and graduated second in his class, *cum laude* and delivered an English Oration at Commencement. Then followed a service as house-pupil on the South Surgical Service at the Massachusetts General and six months at the Boston Lying-In.

Immediately on completing his interne services he was appointed (1907) Alumni Assistant in Surgery and next year was transferred to the Department of Anatomy whose head was Professor Thomas Dwight assisted by Assistant Professor Franklin Dexter and Dr. John Warren as Demonstrator. His service in the School has been continuous for forty years, of which thirty-nine have been devoted to Anatomy, as Assistant, (1908-15), Instructor, (1915-18), Faculty Instructor (1918-24), Assistant Professor of Applied Anatomy, (1924-36), and Associate-Professor (1936-47). His interest in clinical work, both hospital and private, has been no less engrossing. He was Assistant Surgeon to Out-Patients at the Children's Hospital (1909-12); at the Lying-In (1910-16); at the Boston City Hospital (1911-16); Assistant Visiting Surgeon for Diseases of Women (1916-23), Instructor in Gynecology (1921-36), Visiting Surgeon for Diseases of Women (1923-30), Surgeon-in-Chief for Gynecology and Obstetrics (1930-42), Consulting Surgeon since 1942, all at the Boston City Hospital. Retired from active duty by the age limit, he was immediately recalled for the duration of World War II. His "spare time" was variously employed;—by long service as Surgeon in the State Guard, and by editorial work with the *Boston Medical and Surgical Journal* of which he was Editor-in-Chief (1915-21), and with its successor the *New England Journal of Medicine,* in which have appeared for the most part his numerous clinical contributions, editorials and historical or biographical essays. There was time, also, to preside over the Classical Club of Greater Boston, but not enough, alas!, to permit continued practice on his beloved violin.

Dr. Green's peculiarly important service to the School has been in teaching of gross Morphological Anatomy, of which he took charge in 1927 on the untimely death of John Warren, for whose *Hand-Book of Anatomy* he wrote the text. He has personified the attributes of the ideal teacher;—a love of teaching as a vocation, an absorbing interest in his subject and unfailing sympathy with his students. His opening lecture demonstrations were the first exercises attended by the students, and for most of them the door was thus opened to the mysteries and fascinations of their chosen profession. He kindled them by his enthusiasm, reassured them by his lucidity, confirmed some, indoctrinated others and charmed all with a realization that the humanities can add a lustre of their own to the torch of science. It is doubtful whether his predecessor of 100 years ago, Oliver Wendell Holmes, pointed his lectures with more illustrations and allusions to literature, the arts, philosophy, and to human experience. His first hand knowledge as a clinician made a living subject of anatomy, enabling him to point out and explain the significance of structures and their relations, so that details which otherwise can be but boring facts assumed their proper importance as essential elements in the diagnosis and treatment of disease.

His students accorded to him a full measure of respect and affection. The Class of 1932 dedicated their album Aesculapiad to Robert M. Green, "who introduced early in the professional career of the Class one of the cornerstones on which the Art is founded, and whose association and instruction remain to encourage and inspire," a later tribute speaks of "his dynamic, erect figure," of "the fascination of his introduction by well chosen, eloquent words," of his dignity and efficiency and of the "respect inspired by his spirit and integrity." At his last lecture before an amphitheatre crowded by first-year and upper class men and faculty colleagues he demonstrated the subject of the day with his

usual lucidity and complete self-possession, quietly announced that this lecture closed his forty years of teaching, spoke of his happiness in his work, and withdrew with a shy smile of deprecation at the storm of applause. The curtain call not being responded to, a pursuing posse brought back the embarrassed teacher of perhaps five thousand students to listen to a tribute of affection couched in prose and verse and song. Then, in spite of his modesty, must Robert Green have felt that he had realized his ambition, faithfully to maintain the academic tradition in which he had been bred, and to transmit unimpaired, so far as in him lay, the apostolic succession, as he called it, of the distinguished teachers of anatomy at Harvard.

This account of Dr. Green covers all too briefly the facts of his career. From deeper well-springs than love of vocation has come the spiritual strength which has sustained him through years of unremitting if congenial work, culminating in the vacation-less war years. His home has been a singularly happy one and the scene of an abundant family life. His marriage in 1919 to Dorothy Bradford Summers united a scion of the Puritans to a lineal descendent of five Pilgrim Mayflower ancestors;—Alden, Bradford, Chilton, Warren and Winslow, and to bless the union have come nine children,—five girls and four boys, all educated in the Public Latin Schools; four with Harvard or Radcliffe degrees, one now in college and one about to enter, and the three younger showing promise of similar tastes. As the words are written a headline in the Boston Herald of April 21 attracts attention. It states that on "Mother's Day" the Golden Rule Foundation selected as the "American Mother of the Year" an estimable lady of Iowa who, at the age of seventy-two, could boast of having successfully raised five children, and accomplished certain undertakings for social betterment. Perhaps the Foundations' scouts may find at Mason Terrace, Brookline, a promising candidate for next year's award!

And so with faculties and senses unimpaired and vigor scarcely lessened, may Robert Green realize the hope expressed in the words of his beloved Horace:—"Precor integra cum mente nec turpem senectam degere nec cithara carentem!" In case a reader's well-thumbed copy of the "Odes" rests in the fishing shack awaiting re-perusal during next summer's vacation, a free translation may not be amiss:—"I pray that I may spend my old age with mind intact and not without honor and not lacking in the enjoyment of the fine arts." And with mind freed by the industry of a lifetime of all anxiety about "res angustae domi," (as the Latin has it) may he, with his beloved companion, dwell on the slopes of some New England Parnassus, completing, with the fostering aid of Apollo and of the Muses Clio, Euterpe and Calliope his metrical translation of the Odes of Horace, and perhaps an Arthurian epic, "The Romance of the Round Table!"

The Alumni Office

Clark W. Heath, '26

Edward Hamlin, Jr., '33, Secretary and Editor and Mrs. K. B. Wilson, Executive Secretary.

Doctors as a class are not distinguished either for their organizing ability or their ability to pick the right person for a job. A noteworthy exception seems to be the Association's organization of its office in Building A of the Medical School and their placing it under the efficient management of Mrs. K. B. Wilson. Mrs. Wilson has been our Executive Secretary since 1936. During the years she has suffered nobly (and not always in silence) under the shifting officers of the Association. She has had an indispensable part in developing the useful functions and effectiveness of our office and increasing the interest in the Association. She has watched many classes of senior medical students graduate; made lasting friends of most, enemies of few. Many write to her, identifying her with the Association: the personal touch has helped. Mrs. Wilson's faithful supervision of each Bulletin has been of the utmost help to the various editors, who must fit their editorial duties to their own busy medical schedules. Mrs. Wilson has the right job "motivations" which the psychologists tell us are the important things for work satisfaction and accomplishment.

The office of the Harvard Medical Alumni Association is an integral part of the complicated administrative organization of the Medical School. The Dean's Office recognizes the strategic value of having the office close at hand and available. Not a small part of the Association's helping hand to the School are the facilities it offers to the administration of the School. The office is the chief and official connecting link between the School and the graduate: between the process of manufacture and the value of the product, so to speak.

Here are the only complete files of all the names and addresses of Harvard Medical School graduates. These files are arranged alphabetically, by class and by geographical location. During the war there was a military file containing such facts as rank, branch of service, citations, information concerning special contributions, etc. The military file has now been incorporated within the alphabetical file, where the facts of military service are easily available since about 32 per cent of the Alumni were in uniform, and many others did work of importance to the war effort. Our office cooperates with the Harvard Alumni office in keeping the latter fully informed of the medical alumni. The Harvard Alumni office in return keeps addressing stencils up to date and takes care of the mailing of the BULLETIN and other material at a small charge.

The clerical work of maintaining files is very large, not to mention that of the other functions of the office. Yet this is ably done by Mrs. Wilson and a part-time assistant. For example, if an alumnus has changed his location and (we hope at any rate) has written of his new position to the Association, the procedure is to change the address on the alphabetical, class and geographical file, make out a card for printing in the BULLETIN, notify the Harvard Alumni Office and (surprisingly often) write a personal note of acknowledgment and best wishes. In these months after the war, when there are so many relocations, as many as 100 such notifications a week have been received. If a Class Secretary desires a list, if the Council wishes to communicate with alumni in a particular location, if the Dean's office requests the address of a particular graduate, the matter may be taken care of expeditiously.

Without doubt, the office has never been so busy as at the present time. Take for example the work that has been necessary for the Annual Meeting and dinner on June 11, 1947 at Atlantic City. This is the occasion of the Centennial of the American Medical Association. It is the desire of the Officers and Council and the local committee under Dr. Edward L. Bortz, to make this the largest gathering of Harvard Medical Alumni in history, and at present this seems quite likely. Our office has sent out 6,000 reply cards. In addition to making the necessary arrangements for a good banquet and an interesting meeting, it has requested the Class Secretaries to write personal letters to class members. 2,500 such letters, signed by Class Secretaries, have been mimeographed and mailed. It has been variously estimated that between 300 and 400 may attend this meeting. Already 300 replies have been received from those who will attend.

Myles P. Baker, '28, Treasurer of the Association.

The BULLETIN itself requires, of course, a major proportion of the work of the office. The endeavor of the Association has been to increase the size and importance of the BULLETIN, to make it more readable and informative, to provide complete news of the graduate body and the affairs of the School, at the same time offering space for articles of rather general

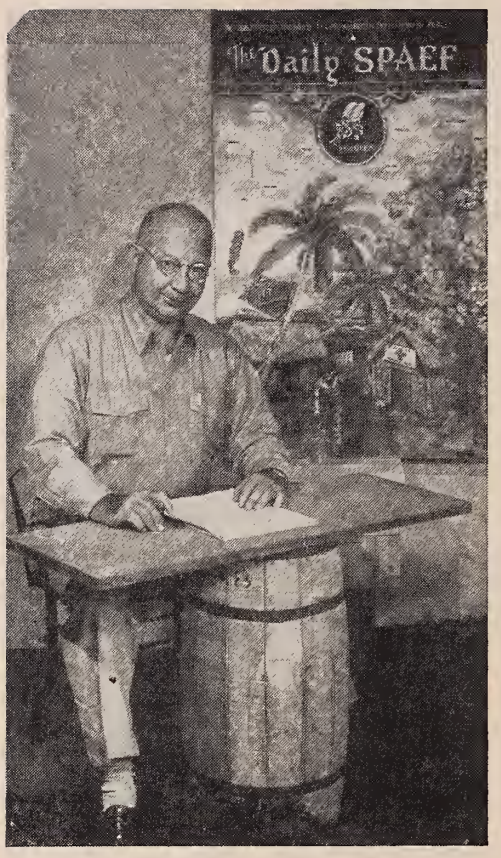
Clark W. Heath, '26, Secretary and Editor, 1937-1946.

free to all Alumni, and to the Senior Class at the Medical School. Those who have engaged in editorial duties will realize the large amount of effort and time that must go towards publishing a reliable, official organ of an Association of this size. The expansion of the BULLETIN is only limited by financial considerations. The annual cost of publishing four issues amounts at present to about $3,500. a year. Only about one-half of the expense is borne by advertising. Receipts from appeals do not go exclusively toward maintaining the office and the BULLETIN. Last year we gave $6,400 in fellowship funds.

Other functions of the office are to arrange the meetings of the Council, prepare the agenda for the meetings, assist committees in their work, arrange Class Reunions (there will be at least eight this year—the office taking care of mimeographing, postage, often the actual dinner arrangements themselves); send out annual appeals and voting lists, assist and answer requests of individual alumni in interest. 6,000 copies are printed and sent any way possible; assist the Treasurer in his accounting of receipts and disbursements. All of these activities are not rigid but have gradually been enlarged or improved during the years. The results of the efficient planning of our Officers and Council through the past decade have been reflected by increased interest on the part of alumni everywhere.

A number of years ago some officers of the Alumni Association of the various graduate schools at Harvard got together and compared notes. It seemed apparent that the Harvard Medical Alumni Association was outstanding in the number of contributors, in the scope of its activities and the aid it was giving to its section of the University. There are many ways of improving our organization and its activities without doubt. As far as the office is concerned, it would be of advantage to have an additional room which returning alumni could make their headquarters, class officers hold meetings and for other functions. There will probably be need for more secretarial help and for office devices to make the work easier. As the BULLETIN enlarges and improves there will be need for more space and closer supervision by an enlarged editorial staff. Suggestions from alumni would be most welcome and they should be addressed to the care of our very efficient Executive Secretary, Mrs. K. B. Wilson.

Correspondence



Dear Dr. Hamlin:—

The other day while unpacking a sea chest which had just arrived from New Zealand, I came across the enclosed photograph; after seeing some of the pictures published in the Alumni Notes, I thought that it may have more or less historic interest.

The story goes back to the early days of the Guadalcanal campaign, about November 1942. Our naval medical unit had finally secured a toe hold at Lunga Point and the 1st Marine Division was coming in for Round 2. I had been appointed Editor in Chief of the Daily SPAEF, the first service publication of the South Pacific American Expeditionary Forces, from which initials came the name SPAEF.

Getting out the jungle edition of the paper in the relative security of our fox hole headquarters was becoming monotonously routine, so came the day when it was decided that the Editor should have a more dignified and better furnished office. A nearly complete 14 x 14 tent was set up and the luxurious equipment seen in the photograph was assembled by the news staff.

A gala time was had; the time schedule was briefly as follows:

1010 Welcoming speech by Assistant Editor
1012 Editor has his picture taken at new desk
1014 Alert sounded
1015 Enemy plane drops first bomb
1016 Second plane makes a direct hit on tent
1020 All clear
1021 Editor and staff retire to old fox hole headquarters

Unless evidence can be produced to the contrary, I maintain that this sets a new record for editorial enjoyment of a perfectly equipped office; time: approximately 4 minutes, 20 seconds.

Sincerely,
Albert Salisbury Hyman, '18,
(Captain, MC, USNR)

* * *

To The Editor:—

It has recently been brought to my attention that a bronze plaque as a memorial to the Harvard Medical School personnel who were killed in the War will be placed on the wall of the stairway of the Building A. I have also been told that the cost of such a memorial will be over one thousand dollars, probably in the neighborhood of twelve hundred dollars.

Such an expenditure by the Alumni Association for a memorial tablet of this sort, seems exorbitant and foolish to me. It would seem much more advisable to spend the money in other ways. It is my personal feeling that memorials, statues,

tablets, and plaques, are completely useless and extravagant.

I personally feel that the money would be more appreciated. and the memory of the men concerned better perpetuated, by a gift, such as a scholarship, a room, or some important piece of apparatus, etc. This, of course, should be given in the name of the lost men, by the Alumni Association.

I feel that there may be many others like myself who feel that money spent for memorials should be of some use to the future of the Medical School or students. I am writing this letter purely to voice a protest against the memorial tablet as planned and realize that probably much thought has been given this subject; and those who are handling the problem, are probably doing what they feel is most appropriate.

Sincerely,
JOSEPH R. FROTHINGHAM, '37

The following, although addressed primarily to the University, is published in the Bulletin for the consideration of our readers.

(AN OPEN LETTER)

June 16, 1947

THE WAR MEMORIAL COMMITTEE
MR. HENRY C. CLARK, Secretary
Wadsworth House, Harvard Universty
Cambridge, Massachusetts
Gentlemen:

At the present time, when War Memorials are under discussion, there is comparison of the functional memorial as opposed to the static or statuesque. The important question, however, is "functional for what?" The idea of function in respect to improvement in knowledge of man seems to be closest akin to the thought and emotional feeling of our service men and their families. Our war dead could scarcely wish a more fitting memorial than an institution dedicated to the promotion of understanding and the prevention of discord in human relations.

As members of the Department of Hygiene, we are fully aware of the need for better physical facilities at Harvard for the care of student health. However, we wish to invite your attention to a matter of wider implication in the modern care of student health: a matter which should have great appeal to alumni, to those who have been in the armed services, and to the families of those who have died in the war. This is the combining of a new infirmary and clinic with the endowment of a research program for the study of healthy individuals, of which student health facilities would form an integral part.

Not so long ago two or three doctors in as many rooms in Wadsworth House were all that seemed to be needed. To some it may still seem strange that student health should be linked with so large a field as a general study of healthy individuals. Few alumni have a conception of the great demands now made on a college health service by students needing help for adjustments to the academic requirements of the college, the choice of a career, the balancing of dependence on family, and the other stresses and strains of living in the modern world. Experience has shown that the medical care and treatment of the students cannot be separated from the environment in which they live. In fact, modern medicine is recognizing more and more the relationships between family background, manner of life, motivations, strivings, and health.

But the problem is a greater one than the physical and mental health of students. It is not difficult to recognize how little we really know of the people who carry on the work of the world in comparison with our technical knowledge of the diseases that currently afflict a smaller proportion of mankind. Much is being written about the delay in growth of knowledge of man and human relations in comparison with the rapidity of advance in other fields of science. Yet current trends could be well documented to show the large endowments going towards the branches of physical science on the one hand and the allevia-

tion of disease on the other, while relatively little is being devoted to interhuman relationships. Fear of the consequences of too rapid an advance in knowledge of the physical world has dictated much of what has been said on this subject. But it is not fear alone that need force us into a striving for better knowledge of mankind. Grave problems are facing us in the future, and not the least of these are how to select for leadership and how to develop and train individuals to reap the greatest satisfactions out of their lives.

The decision as to whom we study seems not so important in the present stage of ignorance as that we begin. At best, Harvard can be but a unit in such a large endeavor, but it can assist in pointing the way. The Grant Study, which has been engaged in such fundamental study for over eight years, is closing its doors owing to the cessation of private financial support. Nevertheless, among other projects the Study has made an exploration in collecting very extensive data concerning 260 healthy young men and their antecedents. Using this experience, we should endeavor to assemble similar data on further groups. Since heredity and culture exert their influences on man over long periods of time, the importance of making an early start in such observations has been realized. The answers we are seeking may be given only by long-term patient research.

We would like to suggest that the Harvard War Memorial Committee take into serious consideration the proposition of establishing within the Department of Hygiene, or elsewhere in the University, an institution for the continuing cooperative study of healthy persons as individuals. The important thing is an institution that will attract the best minds to such work. This comes before a physical structure, for a building without competent personnel could be useless, whereas superior personnel working for a great goal can operate effectively without an elaborate physical setting. The implementation of this concept would require careful planning.

Eight years' experience in the Grant Study has led us to believe that the following aspects of such a study are of fundamental importance. Briefly, they are: permanency of institution with flexibility to change with existing conditions; *close and continuous cooperation by several established disciplines in the simultaneous observation of the individuals* comprising various groups, particularly students, (with this exception, there should be complete freedom in choice of research projects); the necessity of home visiting; a long-term follow-up system; a coordinated system of records. Much spade work has already been done in this direction. It is highly improbable that significant advance in this field can be obtained in the absence of intimate contact with the material to be studied: human beings.

The past experience of the Grant Study has included the cooperative endeavors of physicians, psychologists, anthropologists, physiologists, psychiatrists and social investigators. As far as is known, only one other strictly comparable study of healthy individuals exists in the world. Future experience should include close association with interested investigators from the fields of biochemistry and social relations, from the dean's office and from certain educational fields on a graduate school level, including public health statistics. Any such plan should be coordinated with existing university research, teaching and administrative functions, cooperating with them in such ways as may be found expedient.

The definitive aim of such a project might be stated as the fundamental, long-term study of healthy young men by methods and routines such as have been established in the Grant Study but not restricted to the disciplines or the exact objectives represented there, for fresh points of view would be welcomed. There should be no limitation of the field to the student body alone. Yet, these are superior men at our doorstep, many of whom will be leaders in the country. Experience has shown that they are not only ready and

anxious to share in such work but that they benefit by it.

We therefore urge that the Committee give serious consideration to the outline that we have submitted and which we understand has already been brought to its attention in somewhat similar form by Dr. Arlie V. Bock, Professor of Hygiene. We would gladly elaborate upon the plan which is so briefly presented to you here.

Respectfully,

Myles P. Baker. A.B. '22; M.D. '28
George C. Caner, A.B. '17; M.D. '22
Neil L. Crone, M.D. '31
Robert Fleming, M.A. '26; M.D. '30
Clark W. Heath, A.B. '22; M.D. '26
John P. Monks. A.B. '24; M.D. '28
Carl C. Seltzer, A.B. '29; Ph D. '33

To The Editor:—

Will you correct another error in my paper on "Roetgenology at Harvard," as follows:

Dr. Joseph Aub informs me, after reading the article on "Roentgenology at Harvard," that a voluntary course on cancer for fourth year students, formerly given at the Huntington Hospital, has been resumed at the Massachusetts General Hospital since the war. I had not been informed of this when the article was written. It is exactly the type of course outlined in the article, and has been very popular this year when it was given twice. From all indications, it may have to be given three or four times next year, and it should do a great deal to fill in the gap which existed in the teaching of oncology during the war.

Very sincerely yours,
M. C. Sosman, M. D.

THE INSTITUTE OF SOCIAL MEDICINE AT OXFORD, ENGLAND

It is noteworthy that through the war-torn years in England plans have been pursued for the developing of an institution at Oxford University which has many potentialities for the betterment of social welfare. The Institute of Social Medicine, Oxford, came into being on April 1, 1943 when John A. Ryle was appointed the first Professor of Social Medicine and subsequently Director of the Institute. By "social medicine" is meant neither schemes for socializing medicine nor medical social work, but it is defined by our British colleagues in the following original purposes of the Institute:

(a) To investigate the influence of social, genetic, environmental, and domestic factors on the incidence of human disease and disability.
(b) To seek and promote measures, other than those usually employed in the practice of remedial medicine, for the protection of the individual and of the community against such forces as interfere with the full development and maintenance of man's mental and physical capacity.
(c) If required by the University to do so, to make provision in the Institute for the instruction in Social Medicine of students and practitioners of medicine approved by the Board of the Faculty of Medicine in the University of Oxford.

Thus, the three principles of any great medical institution are incorporated in these purposes: research, medical care and prevention, and teaching. The early years of the Institute have had to do with the organization of a number of worthwhile projects. An investigation has been undertaken to study the development, health and sickness experience of a relatively large group of children up to the age of five. In collaboration with local factories, the Institute is investigating occupational morbidity to sickness and industrial hazards. A survey of thyroid enlargement in school children and iodine content of drinking water is being carried out extensively in several districts of England and Scotland. X-ray studies of growth and development of bone are being made. In connection with human genetic studies a pilot survey of 42 pairs of twins of school age has been completed. Statistical analysis of still-birth rates and neo-natal death rates in certain counties and county boroughs is being made. Other activities have included problems in connection with confinement in working-class women, health examinations, consultative work and teaching of students in their clinical years at Radcliffe Infirmary. Perusal of the First Annual Report suggests that the Institute is attempting to fill in the gaps left by government public health methods of collecting and recording health statistics. Surely, if more complete methods of recording illnesses were put into practice, the work of statistical epidemiology would be much simpler.

In his report, Professor Ryle speaks of *social pathology* in contrast to *human pathology,* and defines the former somewhat as follows: "The advancement of our knowledge of man in health and disease and . . . the investigation of the social causes of disease." Incorporated in the concept is the study of the healthy state and the borderland with disease. It is not difficult to see that equal knowledge for human welfare will accrue from directing atten-

tion to factors having to do with healthy groups as with diseased groups and that the two are appropriately cooperative fields of investigation.

Elsewhere* Professor Ryle has stated a point of view that deserves repeating again and again: "We are most of us conscious of the fact that medicine during the past quarter of a century has become (inevitably, be it allowed) not merely more specialized but also more technical, and that in the process—for the technicalities are often precise, intricate, and time-consuming—the old aetiological interest and humanism of our fathers have tended to take the second place. In the teaching hospitals this can scarcely be disputed. Investigation to the limit, mainly by objective methods and often with too little said to or done for the patient during or after the tedious process, has been the prevailing trend, especially in the case of the more chronic or seemingly more obscure varieties of disorder and disease. More and more accurate assessments of local pathology, with the help of more and more colleagues and instruments, and less and less intimate understanding of the patient as a whole man or woman with a home and anxieties and economic problems and a past and a future and a job to be held or lost, have become the order of the day. As we direct our students, so in large measure must the outlook and method of each new generation of doctors be determined."

*Ryle, John A.: Social Medicine: Its Meaning and Its Scope, *British Medical Journal,* Nov. 20, 1943, No. 4324, pp. 633-636.

Reprinted from The New England Journal of Medicine.

Book Review

HARVEY CUSHING. By John F. Fulton, M.D. '27. 754 pages. Springfield, Ill., Charles C. Thomas, 1946. Price $5.00.

Dr. Fulton, from his chair of physiology in New Haven, has brought to the task of depicting Harvey Cushing a perspective which probably would have been impossible to find in one of Cushing's students now practicing neurological surgery. He has also brought to it a literary talent which makes the book fascinating reading, not only for medical practitioners and students, but also for the non-medical, intelligent public. In fact, before this reviewer could secure the book to read, it was first necessary to persuade the Executive Secretary of the Harvard Medical Alumni BULLETIN to part with it. And then having the book in my own home, I found my wife reading the volume every evening—with profit to her understanding of the multiplicity of problems which confront a doctor. Hence, I recommend the volume especially for doctors' wives. Fulton has managed to restrict the quotations from his voluminous source material so that a smoothly flowing narrative ensues—it is a book one reads into the early hours of the morning—but, the extent of the quoted material is sufficient to give the reader the conviction of the fullest authenticity to the interpretation given to the central character.

Cushing had suggested the writing of an account of his life "if the publication of my biography might be of interest or help to medical students." Of the many portions likely to draw the medical student to the volume, the description of Cushing's own life during this period is certain to be one. The despairing neophyte may take refuge in such statements as the diary entry for May 23, 1893: "Cannot keep my mind, if I have any, which at times I doubt, on any work." And again later, "Since that miserable Grippe, I am not capable of nearly as much or as good mental work and am sometimes so forgetful it scares me." And still later, "I wish I had Codman's fourteen hours a day energy and enthusiasm. I get 'woozy' after about three." . . . "I sit most of the day over lecture notes and books thinking of everything under the sun except the work before me." Those of us who find the making of a speech to be an ordeal are like to Cushing, in at least that respect. Despite the innumerable addresses he made, we find him referring frequently to the sweating and palpitation which invariably came over him before making any kind of public utterance.

House officers and residents too may derive encouragement from the fact that despite a Johns Hopkins residency in surgery, Cushing

returned from a year in Europe in 1901, then aged 32, with no notion as to where he was to work or whether Hopkins would have a place for him. Halsted, the surgical chief there, gave him very little encouragement, and his return to Baltimore was largely due to pressure brought to bear by Welch and Osler. But Osler did not hesitate to admonish as well as to encourage Cushing, and a portion of a later letter from William Osler to him will bear re-quoting for the benefit of all of us. "The statement also is made that you have criticized before the students—the modes of dressings, operations, etc. of members of the staff. This, I need scarcely say would be absolutely fatal to your success here. The arrangement of the Hospital staff is so peculiar that loyalty to each other, even in the minutest particulars, is an essential."

Throughout the years from post graduate medical training onwards there is overwhelming evidence of the prodigious amount of work Cushing was capable of doing, and of his devotion to the advancement of knowledge rather than of his own personal desires, there is abundant proof. He and his wife-to-be had been strongly atached to each other for over ten years, but they were not married until he was 33. And, although his valuable publications began to pour out during the fourth decade of his life, and he contributed a 276 page monograph on surgery of the head to Keen's 5 volume Surgery when he was 37, he paid so little attention to earning money that even when he was 38 years old he had once to ask his frugal father for money quickly, to meet an overdraft at his bank. His zeal for giving others the benefit of his thoughts continued nearly to his death, and we find that at the age of 69 he had barred his family from the dining-room by confiscating the large table, all the sideboards and window ledges for material relevant to his biobibliography of Vesalius.

There is also a wealth of episodes revealing Cushing's intense devotion to patients. The most striking of these to me is an incident in which the tracheotomy tube of a man with carcinoma of the tongue had been inadvertently removed and the man was choking with a trachea full of mucus. Cushing, happening along at the time, suctioned out with his own mouth the mucus in the patient's trachea; then put the tube back in.

The biographer had no difficulty in finding a host of features in the Cushing record which form shining examples to his colleagues, but he does not neglect to point out some of the pitfalls of conduct into which Cushing fell. H. C. unfortunately caused some of his junior associates to waste valuable time in attempting to establish fixed notions to which he adhered despite imposing evidence to the contrary. Thus one find that at the behest of the master, Dr. Conrad Jacobson injected samples of human spinal fluid into animals until a total of 350 hymographic tracings had accumulated. Only one of the tracings showed the vasopressor effect which Cushing insisted must be found. Although there are several references in the book to the shortcomings of the hero, I doubt if any of them have the terseness of some of the sentences in Percival Bailey's brief obituary in the Archives of Neurology and Psychiatry, Vol. 42:1140-1144, 1939, in which he said:

"I was with him, off and on, for nearly ten years. He was not an easy man to work with. We disagreed often, sometimes vigorously. When the tension became too great I went away for a while. But I always came back." But Bailey adds: "My own debt to him is incalculable."

However, to complete the picture one must add that the assemblage of brilliant talent under Cushing's tutelage insisted on sending as well as receiving some of the barbed shafts. Thus, in a Brigham minstrel show seen by Cushing, a patient was presented as being about to undergo an abdominal operation by John Homans when one "Carvey Pushing" pressed John aside and opened the patient's head with some formidable tools. On another similar occasion the "Chief" was represented as commandeering at least 50 people into the operating room to do one odd job or another connected with the operation. This type of give and take is merely an inconsequential sidelight on the main aspects of Cushing's personality. The fortitude Cushing must have had to pursue his chosen field may be gleaned partially from these figures: in the first 6 years, 1902 to 1907, in which he operated on intracranial tumors, he had only 39 such cases, in which the tumor was verified at operation or subsequently at autopsy. His mortality rates from operations were high, and many cases operated upon died, without verification of tumor.

During these depressing beginnings, Cushing's tenacity sustained him, and the triumphs he achieved at the operating table, in the experimental laboratory, at his study desk, and on the rostra of scientific meetings the world over mount in crescendo fashion, capped during the close of his life by the publication of his tremendous monograph, "The Meningiomas." Those who have lived and worked at Harvard or Yale will take special interest in learning more about one who brought their schools such honor, but it is an excellent account for all who strive for noble objectives in any sphere.

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